

ELECTRO-TELEGRAPHIC PROGRESS.

Doubtless the apparatus for regulating time put up at the Electric Telegraph Company's station, in West Strand, will shortly come into correct working order, but hitherto it has been playing rather curious cantripa, to the amusement of some and the mystification of more. It is already proved, however, that the ball at Charing-cross can be made to fall simultaneously with that at Greenwich Observatory; but the telegraphic authorities should have stipulated with the public expectation for at least a month's experiment. As it is, the permanent reliability of the system, as a national one, to operate, as it is intended to do, throughout the country, is beginning, perhaps unreasonably, to be doubted.

Arrangements, meanwhile, are being made for the extension and distribution of Greenwich time to all the leading towns throughout the country. It would have been more satisfactory, since we are to have uniform time, could the standard have been calculated from the sun's full meridian in the heart of the island, midland between its eastern and western coasts, rather than from a point so much nearer the eastern than the western. All discrepancies might thus at least have been reduced to their minimum, instead of, as will be the case, rendering such absurdities possible as the sun coming lagging up every day to his meridian at Bristol, Liverpool, or Manchester, some quarter of an hour or so behind the time called noon in such localities. This is indeed a go-ahead British generation, since the sun becomes, in its estimation of time, a laggard throughout the greater part of the whole country!

It is in contemplation, on the other hand, to have a time-ball put up on a prominent spot on the South Foreland, near Dover, which will also, of course, act simultaneously with the time-ball at Greenwich, and in the Strand. A time-ball, regulated in its falling by the electric current, will enable all the vessels within ten miles' distance and in the Downs to have their chronometers corrected to Greenwich time to a second. It is also contemplated to fire a large gun simultaneously with the ball falling, the electric fluid being the agent in both cases. The firing of a cannon in London every day at the precise meridian, or at 1 p.m. Greenwich time, would be still more useful than the fall of the ball at Charing-cross, as it would instantly announce the time to the whole metropolis, which the time-ball cannot do.

The national telegraph is to be extended to the racecourse at Doncaster during the race week, rather a boon to betting-houses and gamblers in general than to the nation at large, we calculate. One great "advantage" of the proposed extension will be that "in all probability, therefore, the result of the approaching Leger will be known in the metropolis, York, and elsewhere, even before it is known in Doncaster." A mighty advantage, truly!

An arrangement was entered into some time ago between the British Telegraph Company and the Caledonian and other Scottish Railway Companies, to bring the wires along their lines, commencing at Carlisle, and running along the Caledonian, Edinburgh, and Glasgow, Scottish Central, and Scottish Midland Railways, by way of Stirling, Perth, &c. thus avoiding a ferry. It is understood that when the wires are completed to Forfar, the southern extremity of the Aberdeen Railway, the telegraph will probably be then continued along their line to Aberdeen.

The *Paris Constitutionnel* gives the following account of the working of the continental telegraphs:—

"The service of the electric telegraph has been for some time completely organized and at work throughout the whole line from Paris to Strasburg. This new line is connected at Kehl to that of the Grand Duchy of Baden, which in its turn joins the general network of German lines at Birsichel, so that now the telegraphic dispatches, not only from the north of France, but from a part of Belgium and all England; for the centre and south of Germany, as well as for Italy, need no longer pass by the Austro-German lines but by Strasburg, which is the most direct and the shortest route. From Brussels to Vienna, via Prussia, there are eighteen principal stations where despatches are stopped.

From Brussels to Vienna, by Paris and Strasburg, there are only eight stations; and besides, from the multiplicity of the wires established with us, the French lines are less encumbered than the German ones. If, as announced, a convention is in contemplation between France, Belgium, and Germany for working the telegraph, it will give an opportunity for settling about the charges, by means of which the Austro-German Telegraphic Association seeks to prevent persons using the French lines for their despatches."

The telegraph connecting London with Paris, and which will soon connect it with Lyons, Chambrey, Turin, and Genoa, is to be prolonged to La Spezia by the Sardinian Government. From that port the Submarine Company, it is said, is to sink an electric cable to the island of Gorgona, and thence to Bastia. The French Government will then continue the line, by land, at its own expense, to Ajaccio, and the narrowest point of the Straits of Bonifacio, where a cable 14 kilometers in length will, at the expense of the company, establish a communication with Sardinia, which the Piedmontese Government will continue to Cagliari. M. Bonelli, the author of this plan, has proposed to the Submarine Company to prolong the cable to Tunis, whence France would conduct wires to Bougie and Algiers, while England would conduct others to Tripoli, Alexandria, Cairo, and Suez. By this means Algiers would be brought within a few seconds of Paris, and news from India might reach London in little more than a week!

THE BRITISH ASSOCIATION AT BELFAST.

On the 1st inst. the yearly business of the British Association was opened in Queen's College, and in May-street Church, Belfast, with, we are glad to observe, a good attendance. At the first general meeting, which was held in May-street Church, about 1,000 persons were present to hear the address by Colonel Sabine, this year's president. The Lord-Lieutenant—the Earl of Eglintoun—and his suite, with most of the leading men of the city and of the surrounding districts, were there. The meeting was opened by Sir R. Marchison. The address of the president was, as usual, a *resumé* of the state of science in general, particularly of subjects connected with those branches of it with which the president was more versant; such as astronomy, terrestrial magnetism, the trigonometrical survey, science of the tides, &c. and the question of a north-west passage. He notified that our Government had acceded to the request made by the United States Government, that scientific publications for the purpose of presentation should be admitted duty free, conditionally that they should pass through the Royal Society. This concession, so imperatively demanded for the advance of science, was speedily followed by a remittance from the United States, which was of such magnitude as to amount to three tons in weight. The Colonel concluded his able address by some observations on the advisability of science being more directly represented in Parliament—a question which had been mooted, but to which he could not give his support.

The report read at Queen's College by the general secretary, Professor Forbes Royle, F.R.S. gave details of the transactions of the council during the intermediate period. These transactions had reference chiefly to the successful applications for grants from the Government and East-India Company to aid in the publication of scientific works by Drs. Hooker and Thompson, Messrs. Huxley, Strachey, and Winterbottom, and to the representations made by them to the Government respecting the importance of sending out ships to extend our acquaintance with the phenomena of the tides of the Atlantic Ocean. An explanation was given in reference to some important sectional recommendations of last year, which had not reached the committee sufficiently early to be included in their report. Invitations for future meetings of the association were reported from Hull, Liverpool, Brighton, Glasgow, and Leeds, and some details were given of the proceedings at the establishment at Kew, and of the arrange-

ments for balloon ascents, two of which have already taken place, and were to form the subject of a paper in one of the sections. The auditor's report of the treasurer's account for the past twelve months showed a balance in hand of 237l. 9s. 11d.

DISCOVERY AT ST. MARY'S REDCLIFF, BRISTOL.

The removal of the lining of one of the modern ugly pews in the south aisle of the nave of St. Mary Redcliff, disclosed, under the window in the fifth bay from the west end, a large foliated arched recess, 6 ft. 4½ in. long, and 1 ft. 7 in. deep, and 5 ft. 4 in. high in the centre. The hood-mould, crocketed, foliates the reverse way, so as to produce a cusped outline, the cusps terminating in finials, and the whole resembling in arrangement the well-known monumental recesses in Bristol Cathedral. All the projecting portions had been cut away to make a level surface; but sufficient of the crockets, finials, &c. were found amongst the rough masonry with which the recess was walled up, to admit of its correct restoration, if it should be determined on. On the plain surface of the wall, on either side of the upper part of the recess, the remains of a black-letter inscription are visible. This discovery led to further examination, and in the wall under the adjoining window, eastward, another recess similar in general outline, but quite different in the details, was found. All the projecting parts had been cut away there, too, but portions were built up in the masonry, as in the other case.

In the south transept there are, as is well known, stone effigies, attributed to the first Canynges and his wife, within a canopied monument, to which they do not belong. On the discovery of the first of the recesses, it was found that it agreed precisely in length with the male effigy, and this, in some degree, prompted further examination to discover a second. The belief that we have here the original locality of the effigies in question, has been strengthened by the fact that in the second recess was found some panelling with a shield, on which have been painted in black, with the eyes and teeth white, three Moors' heads, the arms of Canynges; and on removing the earth below, a skeleton was found, which, from the size of the bones, &c. is thought to be that of a female. We have not yet examined critically into the matter, but shall do so, as it is one of considerable interest, bearing, too, upon the age of the different parts of this exquisite building. Mr. Godwin had long since expressed his opinion that the south wall of the nave, which, in its present aspect, is of the Perpendicular period, like the greater part of the church includes portions of the south wall of the earlier building, the building which belonged to the inner north porch. The "reponds" to the clustered columns, which carry the groined vaulting of the aisle, are quite different from any others in the church, and much earlier—earlier than the monumental recesses which have been found below.

Reviews of Books.

RAILWAY SERIALS.

Murray's Railway Reading.
Longman's Travellers' Library.

MR. MACAULAY'S admirable essay on "Lord Bacon" forms a recent number of the latter work, and one which we heartily welcome. Writings of this class being brought into general circulation, substituted, by their publication at small cost, for the mischievous rubbish to which the travelling population were at first restricted, cannot fail to have a considerable influence on the growing manners and thoughts. The system will produce, too, a great and advantageous change in the publication of works generally, if we mistake not: cheap books will make a buying public, and a buying public will make cheap books pay. The life of Bacon, greatest and meanest of mankind, is an oft-told tale; but we do not know so acute and discriminating a view of it as that taken by Mr. Macaulay. From this chequered spectacle of glory and of shame all most rise humbled but improved. Knowing